

CLAIM (An original English claims)

(8)

1. Shadow mask material comprising nitrogen equal or less than 0.0030 wt%, boron satisfying an inequality of $5 \text{ ppm} \leq B-11/14 \times N \leq 30 \text{ ppm}$ and the residue including iron and unavoidable impurities.

2. Shadow mask material comprising carbon equal or less than 0.0008 wt%, silicon equal or less than 0.03 wt%, manganese from 0.1 to 0.5 wt%, phosphorus equal or less than 0.02 wt%, sulfur equal or less than 0.02 wt%, aluminum from 0.01 to 0.07 wt%, nitrogen equal or less than 0.0030 wt% and boron satisfying an inequality of $5 \text{ ppm} \leq B-11/14 \times N \leq 30 \text{ ppm}$ and the residue including iron and unavoidable impurities.

3. A method for manufacturing shadow mask material made of a steel sheet characterized of comprising nitrogen equal or less than 0.0030 wt%, boron satisfying an inequality of $5 \text{ ppm} \leq B-11/14 \times N \leq 30 \text{ ppm}$ and the residue including iron and unavoidable impurities, wherein a hot rolling furnish is higher than a point Ar_3 , said steel sheet is hot rolled at a coiling temperature from 540 to 680 °C and cold rolled after pickling and then said steel sheet is annealed in a continuous annealing step so as to control a content ratio of remained carbon equal or less than 0.0008 wt%.

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4. A method for manufacturing shadow mask material made of a steel sheet characterized of comprising carbon equal or less than 0.0008 wt%, silicon equal or less than 0.03 wt%, manganese from 0.1 to 0.5 wt%, phosphorus equal or less than 0.02 wt%, sulfur equal or less than 0.02 wt%, aluminum from 0.01 to 0.07 wt%, nitrogen equal or less than 0.0030 wt% and boron satisfying an inequality of $5 \text{ ppm} \leq B - 11/14 \times N \leq 30 \text{ ppm}$ and the residue including iron and unavoidable impurities, wherein a hot rolling furnish is higher than a point A_{r3} , said steel sheet is hot rolled at a coiling temperature from 540 to 680 °C and cold rolled after pickling and then said steel sheet is annealed in a continuous annealing step so as to control a content ratio of remained carbon equal or less than 0.0008 wt%.

5. Shadow mask made of the material as claimed in claim 1 or claim 2.

6. A picture tube with said shadow mask as claimed in claim

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